NODC Ocean Data Archives and Metadata

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NOAA/National Oceanographic Data Center

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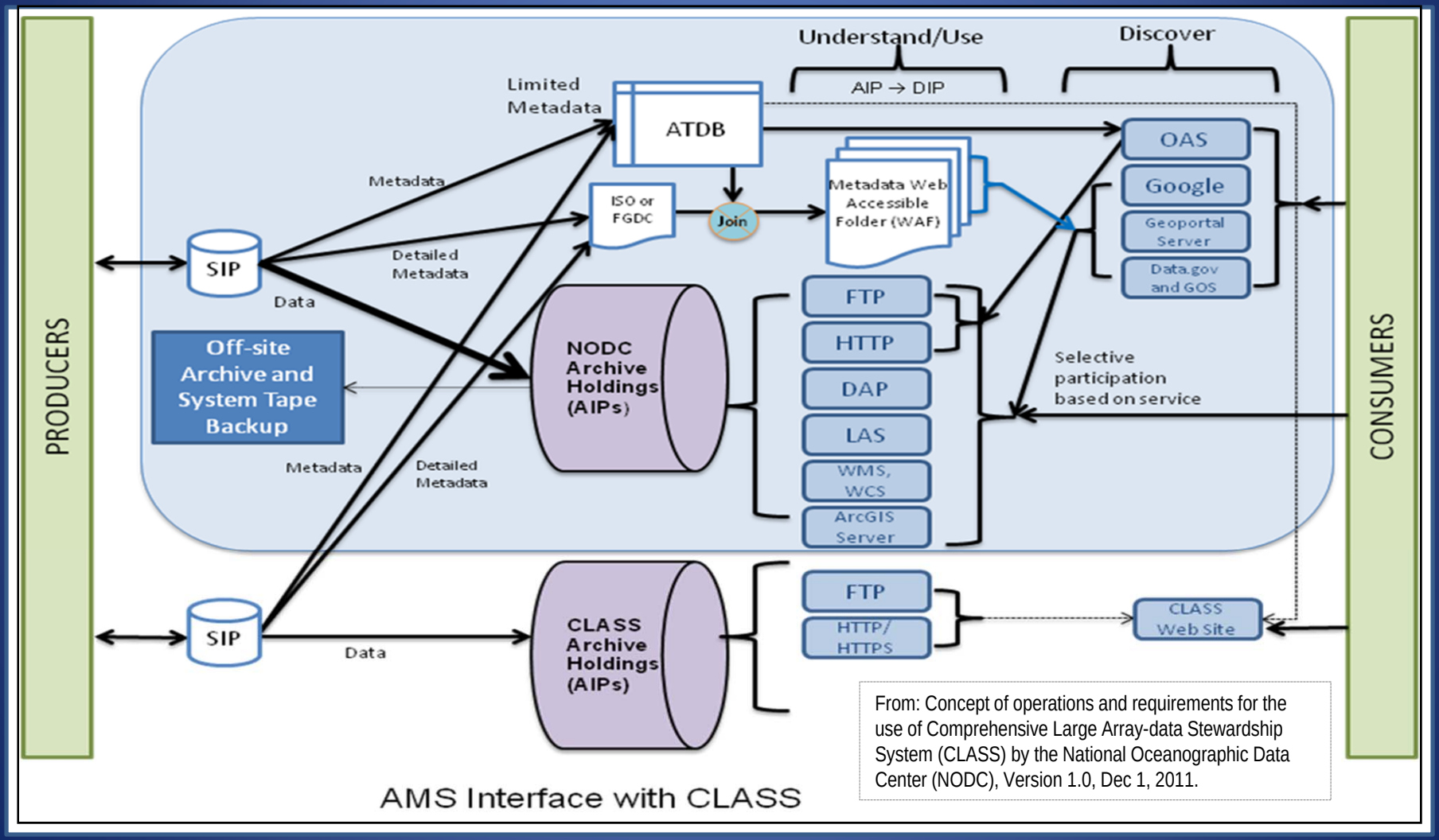
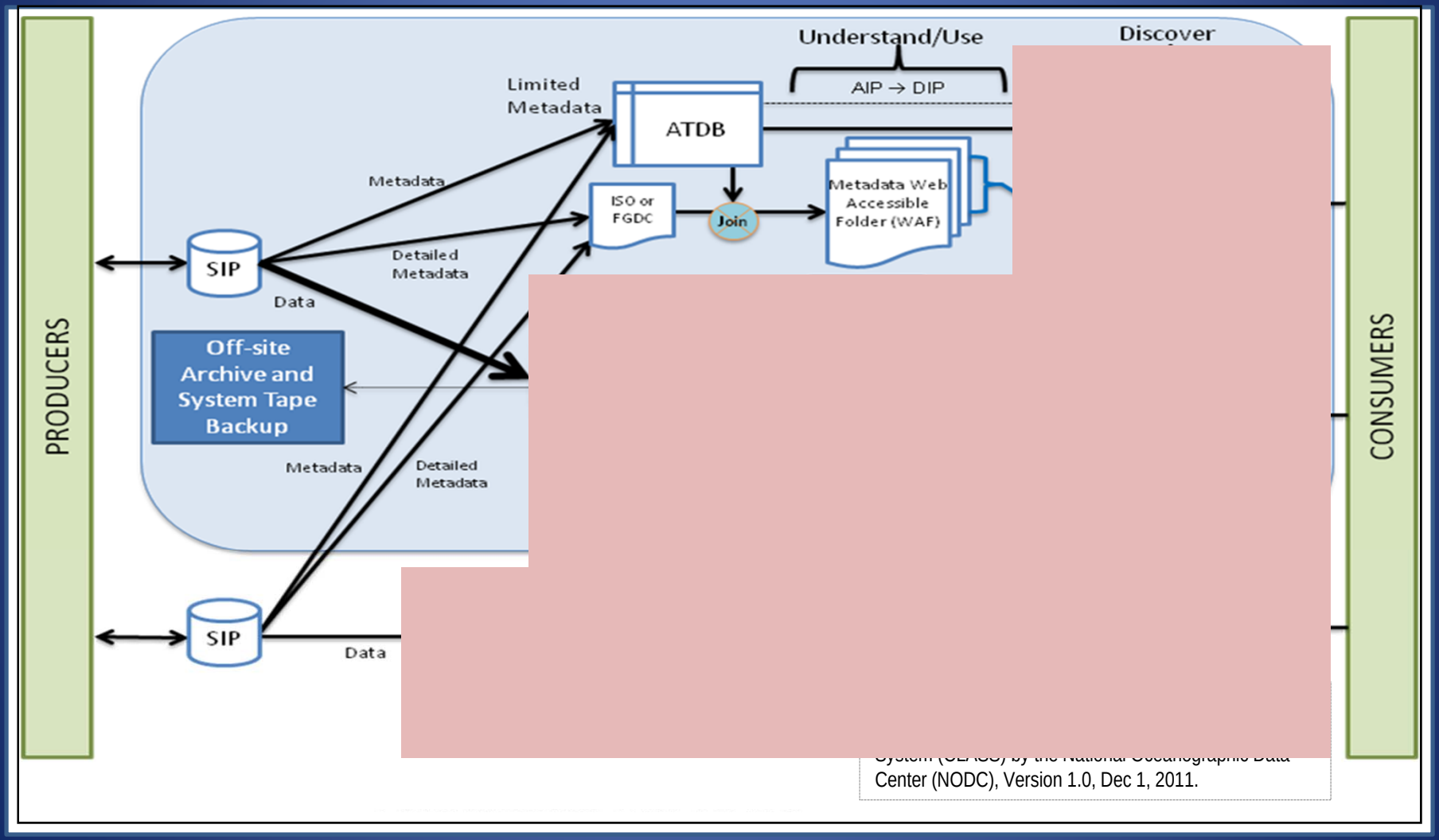
NODC Archive Management System: Diverse holdings of ocean data and information

- NODC scope generally includes
  - Global deep ocean to inland coastal waters and Great Lakes
  - Physical, chemical, biological *in situ* observations
  - Space-based ocean observations and products
  - Ocean model outputs, ecosystems analyses…
  - Photo collections, video collections…
- "NOAA Procedure for Scientific Records Appraisal and Archival Approval: Guide for data managers"

Format-agnostic data stewardship

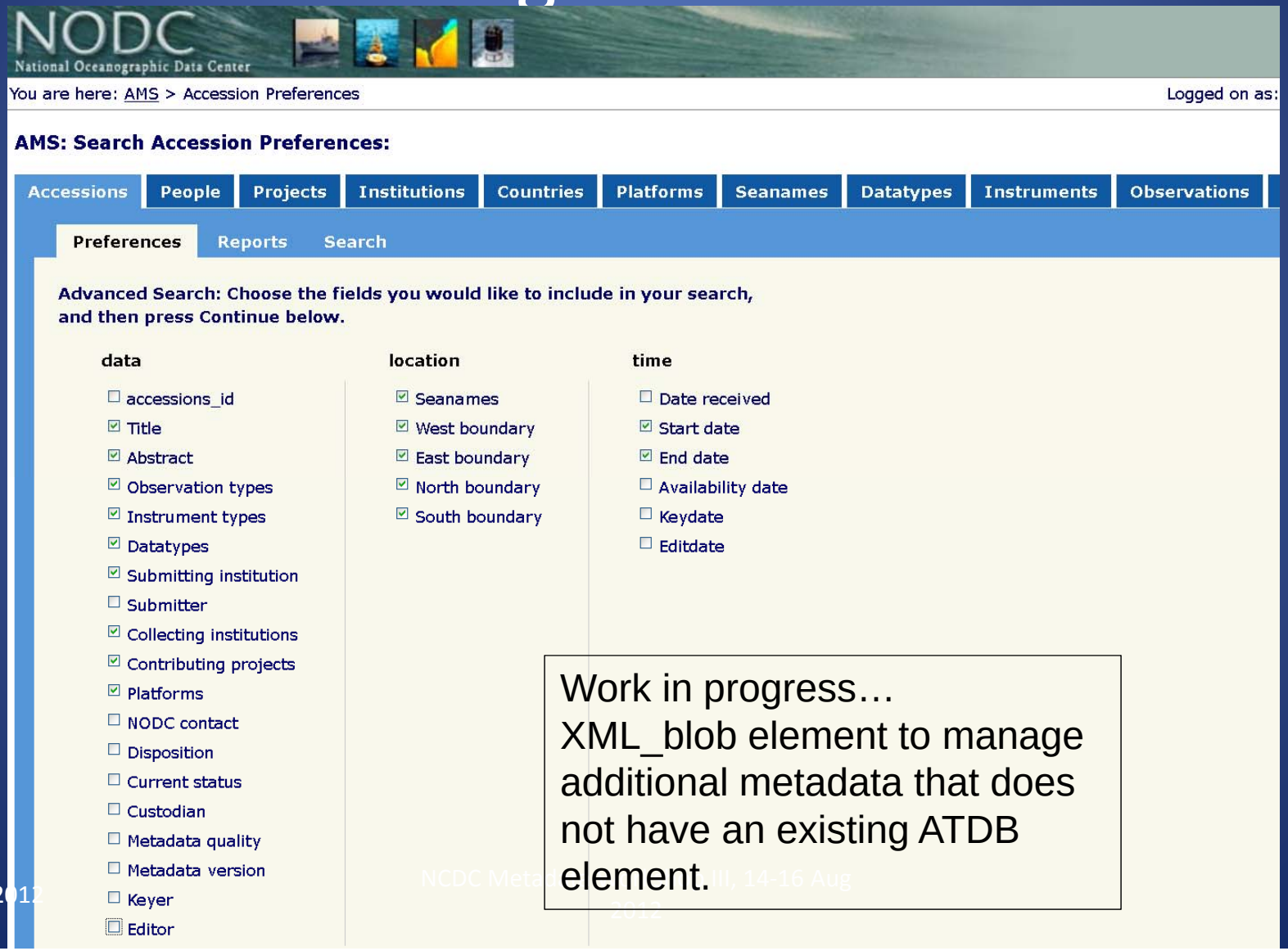


SIP Ingest and AIP Metadata



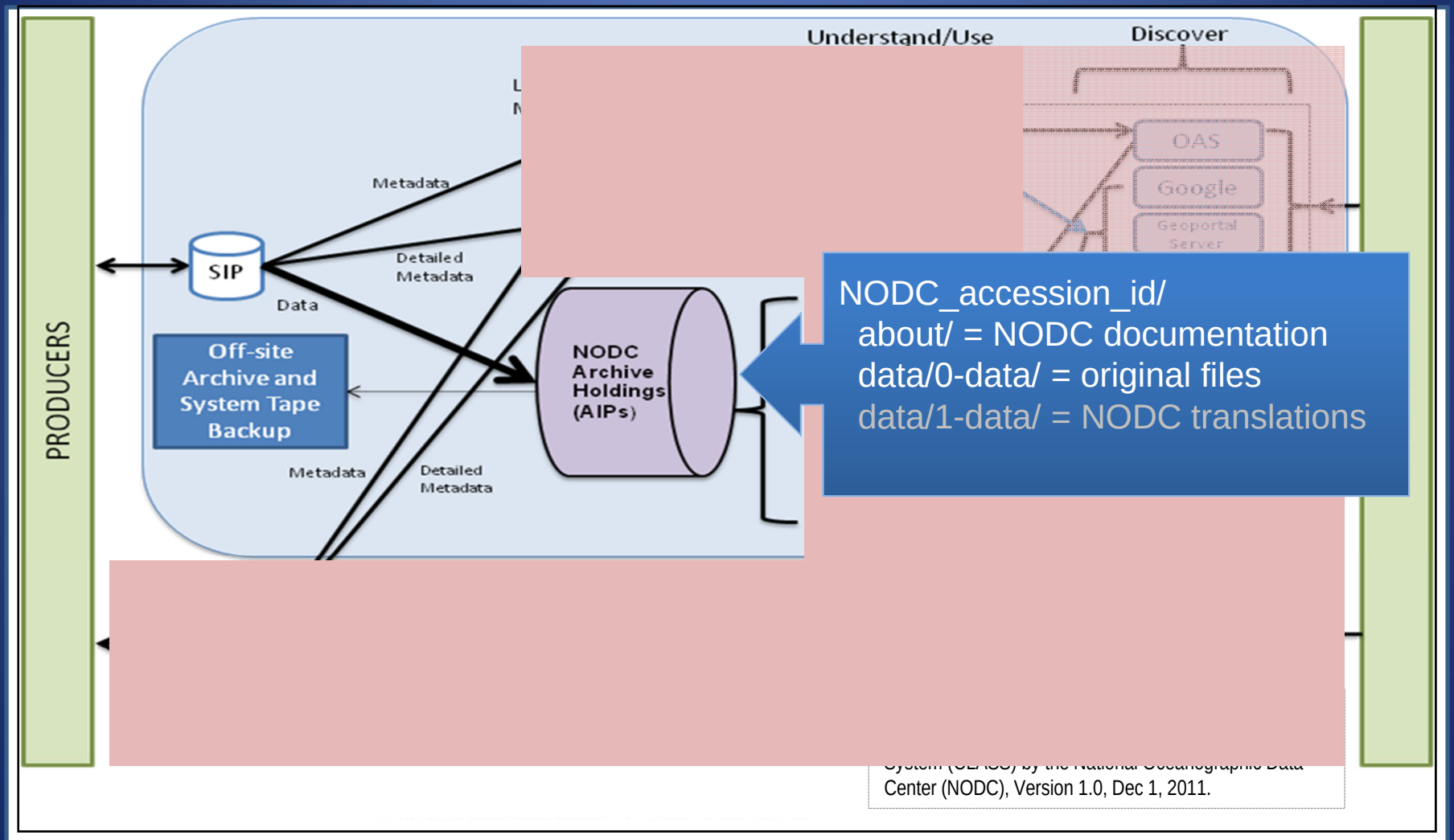
Center (NODC), Version 1.0, Dec 1, 2011.

Standards-oriented metadata for heterogeneous data

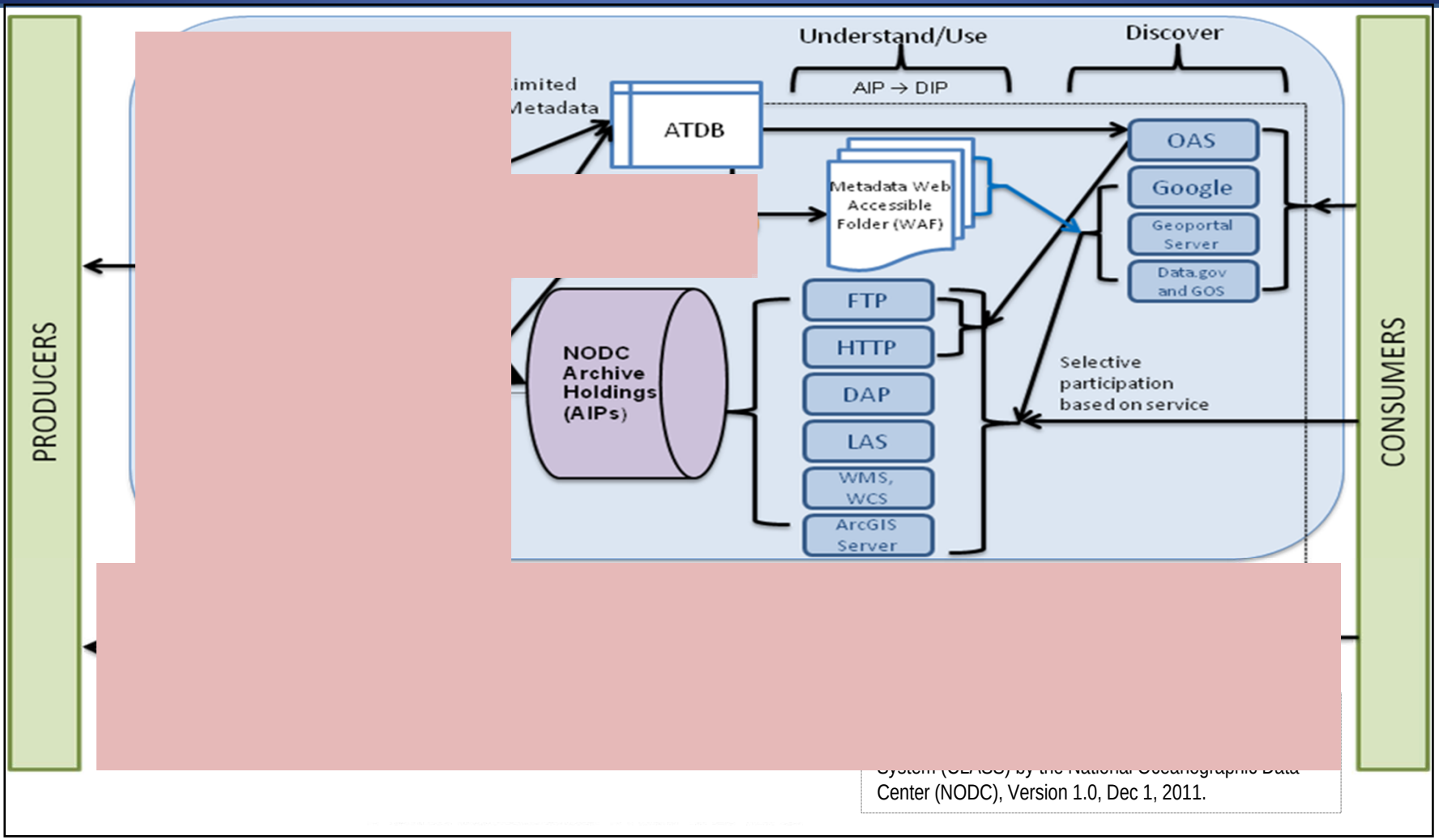


Work in progress…
XML_blob element to manage additional metadata that does not have an existing ATDB element.

AIPs in *canonical form*

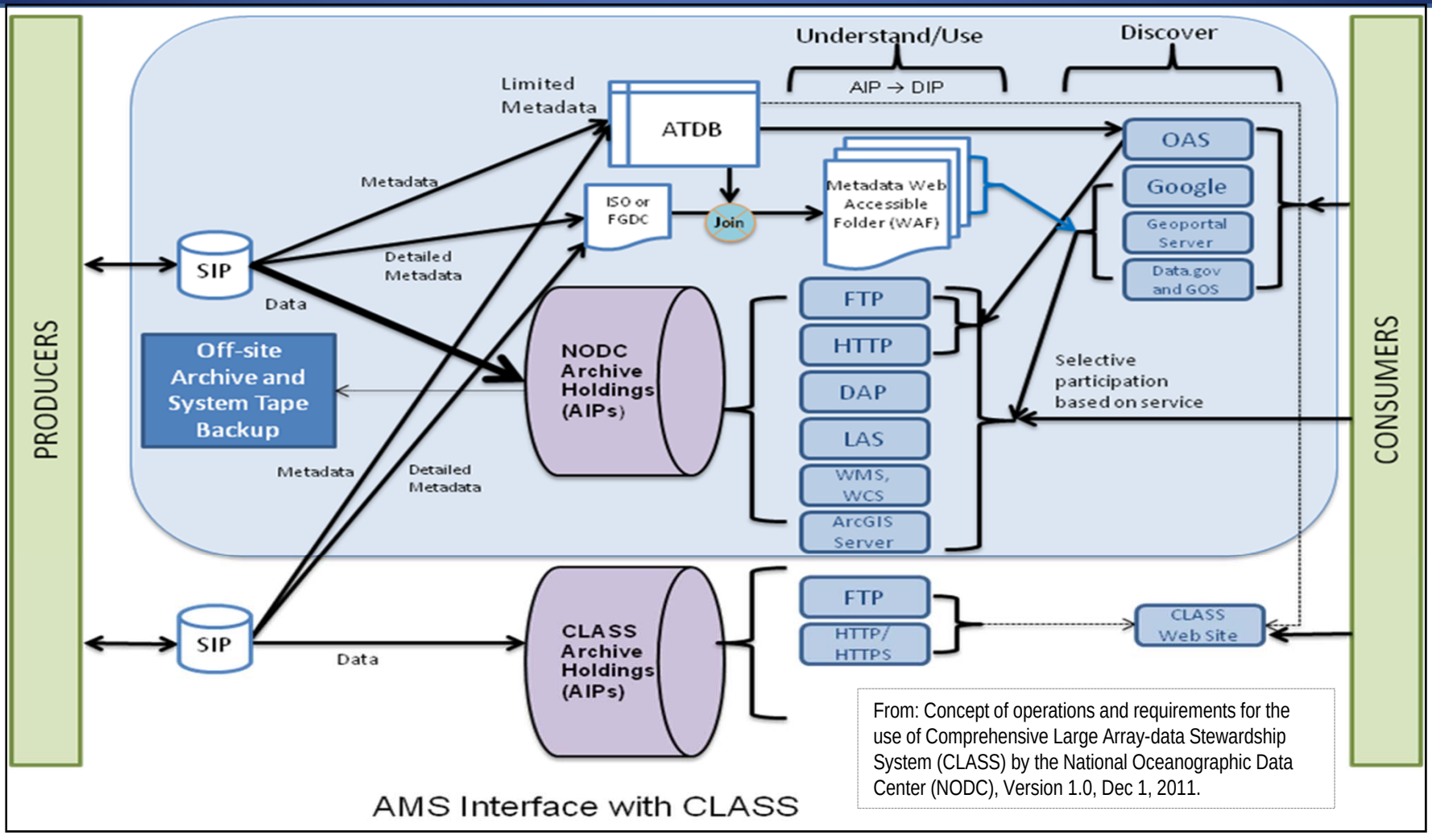


DIP Discovery and Access

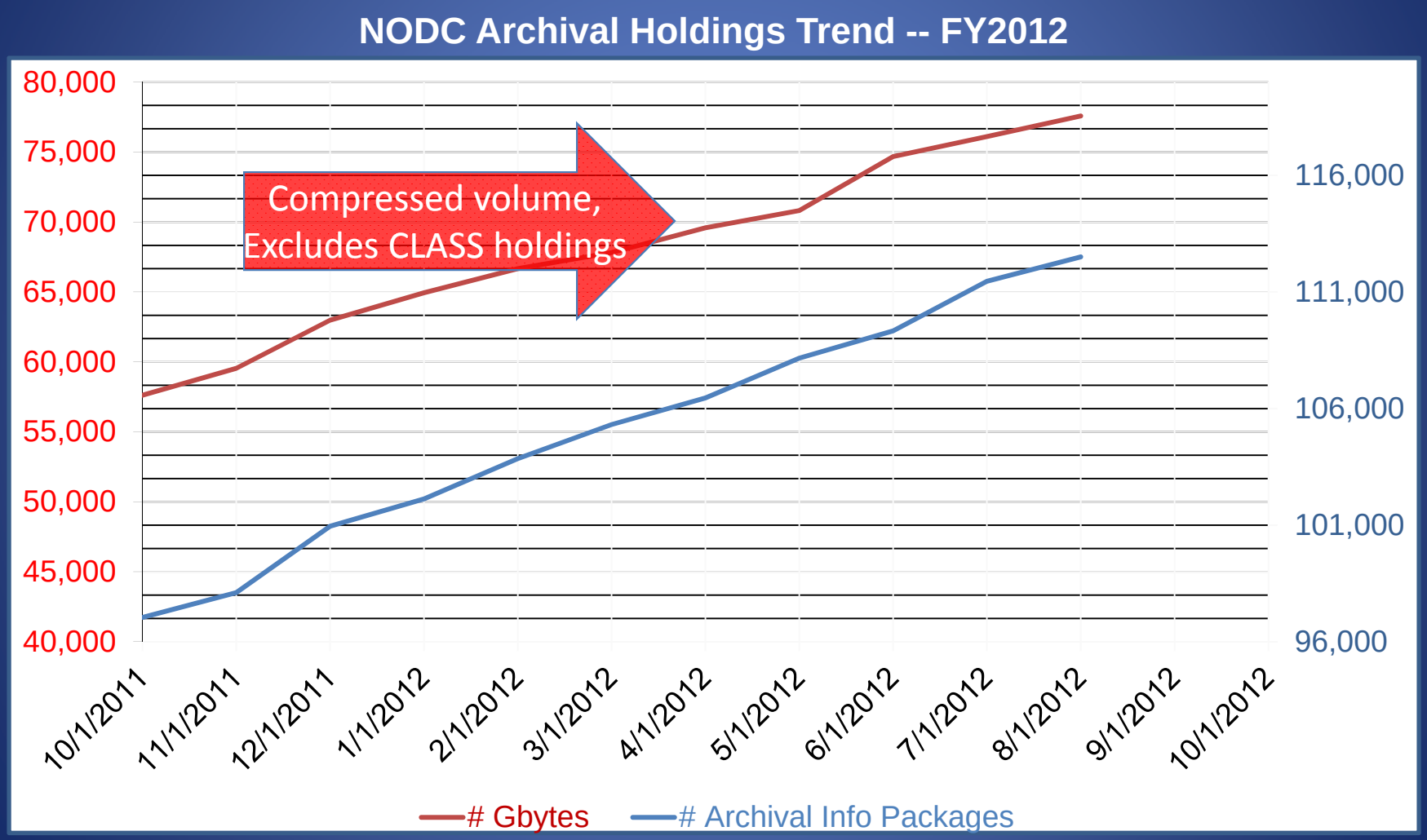


System (OLAGS) by the National Oceanographic Data Center (NODC), Version 1.0, Dec 1, 2011.

Ongoing NODC-CLASS coordination



Diverse holdings continue to grow



Automated ingest: Higher volume, lower diversity

- NODC Submission Information Form describes ***automated, recurring*** data submissions
  - Average about 17,200 new AIPs per year
  - Require sufficient details to enable automated acquisition and ingest
  - At least 15 operational automated ingest processes
    - BCO-DMO, NCEP WAVEWATCH III® and COFS/ROFS , GHRSST
  - *In prep* data acquisition automation efforts include
    - UC Davis Bodega Marine Lab
    - NWS/National Data Buoy Center

Non-automated ingest: lower volume, higher diversity

- Non-automated SIPs require ***different levels of manual scrutiny*** and ingest processing
  - Non-repeating, single time data submissions, highly variable types of data, metadata, formats, etc.
  - Average about 240 new AIPs per year
  - Recommend metadata documentation guidance
    - NODC/NCDDC-developed MERMAid metadata editor and ISO transforms, ISO training courses
    - GEO-IDE and NGDC wiki guidance
    - NODC Electronic Data Documentation Form – elements map to FGDC elements
    - Online Submission System is in prep for Fall 2012 release

File-level metadata and data standards

- Encourage data providers to **use netCDF for data**
  - NODC-developed netCDF templates for various types of geospatial data
  - http://www.nodc.noaa.gov/data/formats/netcdf/
- Encourage data providers to **use CF and ACDD metadata conventions in netCDF files**
  - Use ncISO to extract ISO metadata from netCDF files in AIPs
- Encourage FGDC or ISO format metadata for all SIPs
- **Provide** an FGDC formatted metadata record for all AIPs in Web Accessible Folders for discovery and access

Metadata Golden Rule: Provide as much metadata for others as you wish others would provide for you!

Thanks! Questions?

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Archive data at NODC
See http://www.nodc.noaa.gov/General/NODC-Submit/
or
Send email to NODC.DataOfficer@noaa.gov

Find data at NODC
See http://data.nodc.noaa.gov/geoportal/
or
Send email to NODC.Services@noaa.gov